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Senior Training Workshop on International financing for Energy & CBM/CMM Projects successfully held in Zhuhai

From June 19 to 21, 2002, the Senior Training Workshop on International financing for Energy & CBM/CMM Projects jointly sponsored by US Environmental Protection Agency, Asian Development Bank and China Coal Information Institute was held in Yijingwan Hotel, Zhuhai, Guangdong. Mr. Karl Schultz, manager of Coalbed Methane Office of US Environmental Protection Agency, Mr. Clark Talkington, Program manager of Coalbed Methane Outreach Program of USEPA, Mr. Raymond Pilcher, President of US Raven Ridge Resources Incorporated, Mr. Justing Guest, expert from UK Ecosecurities, Huang shengchu, Vice President of China Coal Information Institute and Mrs. Hu Yuhong Director attended the training workshop and individually presented a special report. There were over 40 domestic representatives from Yanzhou, Huainan, Huaibei, Jincheng, Yangquan, Panjiang and Xinwen mining area's VIP and project managers attended the training workshop.

This training workshop was jointly chaired by Vice President Huang Shengchu and Mr. Karl Schultz. The main contents of the workshop included 4 areas and individually are as followings:

- International finance occasions for coalbed methane projects;
- Loan procedure and key support projects of Asian development Bank;
- New progress of CBM project in the world and China;
- Development status and outlook of carbon emission exchange.

The economic globalization and China being a WTO member will bring a new occasion for Chinese enterprise to use foreign capital. The energy and coalbed methane projects will be the hot points for foreign investments.

Many international organizations are actively to provide donations and technology contribution to joint the development of the energy and coalbed methane projects in China. The coalbed methane development has been put in the energy development plan for the tenth "Five-Year-Plan" of the country. The Chinese Government also provides a powerful support in policy. Therefore the outlook of the coalbed methane development in China is very bright.

This training workshop will play a very important role to efficiently apply a favorable loan from Asian Development Bank and to seek a international assistance projects, to solve the project finance issue, to encourage the implementation of the projects and promote the development step of the energy and coalbed methane industry in China for Chinese enterprises.

Policy Encouraged to develop and utilize Coalbed Methane in China

The development of the coalbed methane will have many benefits, such as the air environment protection, creating new energy, improved coal mine safety and others. For many years, Chinese Government is always paying an important attention to the development and utilization of the coalbed methane. In early 1980's, Chinese Government had officially put the utilization of coal mine gas in "the Investment Plan for Basic Construction of Energy Saving in China". In "the Decisions on Key Point of Present Industrial Policy" set by the State Council of China, the development and utilization of coalbed methane had been put in "the contents of the present industrial development sequence" as a key industry and new product to be supported and built. "Coal Law of the People's Republic of China" issued in 1996 clearly pointed that China encouraged the development and utilization of coalbed methane. The exploration, development and utilization of coalbed methane were put in "the state contents of industry, product and technology of the present key encouraged development" and "the industrial contents of encouraged overseas investment" practiced in 1998.

In 1996, the State Council approved the establishment of China United Coalbed Methane Corp. and approved the China United Coalbed Methane Corp. as one unit in the State Plan, which has a special business right to explore, develop and produce coalbed methane with international cooperation. This means that Chinese Government began to take the development and utilization of coalbed methane as an industry to be supported. Meanwhile, the Government confirmed that the development of the coalbed methane would follow the management of petrol oil model and that is to say, all available laws and regulations for the petrol oil and natural gas industry would be suitable for the coalbed methane. Base on those, in order to enhance the support to the development and utilization of coalbed methane, the Government issued a series of preferential policies to support the development of coalbed methane, mainly including:

- a. A value increased tax of the coalbed methane project with overseas cooperation will have 5 %. The value increased tax of a domestic operated project will first be 13 % paid by the project and than 8 % of the tax

will be returned to project. That is to say, the value increased tax will be 5 % in practice.

- b. The machine, equipment, spare parts, material necessary imported for the exploration and development of the coalbed methane will be import tax free and other related tax free.
- c. The price of the coalbed methane will be depend on the market economic principle and should be set by the negotiation of the seller and buyer with no price limitation from the Government.
- d. The mine loyalty will be paid (calculated by gas field) as a in-land natural gas project cooperated with oversea, as followings:
 - For an annual coalbed methane production not over 1.00 billion m³, the mine loyalty will be free;
 - For an annual coalbed methane production between 1.0 – 2.5 billion m³, the mine loyalty will be 1 %;
 - For an annual coalbed methane production between 2.5 – 5.0 billion m³, the mine loyalty will be 2 %;
 - For an annual coalbed methane production over 5.0 billion m³, the mine loyalty will be 3 %.
- e. From the year with profit, the enterprise income tax of the coalbed methane project cooperated between China and overseas will be free for the first two years and then tax reduction for the late three years. That is to say, there will be no income tax for the project for the first year and second year and 50 % income tax for the third year to fifth year;
- f. The utilization of the coalbed methane

brought up from underground mine is a comprehensive utilization of mine waste gas and can share a preferential policy for the income tax. The income tax according to the most preferential policy can be free for the first 5 years when the project in production;

- g. The Chinese Government each year provided over RMB 1.00 millions to China United Coalbed Methane Corp. for the geological exploration cost and mineral resources compensation. Meanwhile there is no income tax for China United Coalbed Methane Corp. for the time being and the income tax for China United Coalbed Methane Corp. will be depend on the future development

In additional, on June 2000, in order to encourage the development of the mineral resources in the north-west part of China, the ministry of National Land and Resources and the Ministry of Finance jointly issues “Methods for Exploration Loyalty and Mining Loyalty Reduction or Free”, including the followings:

- a. There will be an exploration loyalty free for the first year of the geological exploration, 50 % of the exploration loyalty for the second year and third year and the exploration loyalty reduced by 25 % for the fourth year to seventh year;
- b. There will be an mining loyalty free for the first year of mine construction or mine production, 50 % mining loyalty for the second year and third year of mine production, and the mining loyalty reduced by 25 % for the fourth year to seventh year;
- c. There will be a mining loyalty free for the

year when the mine closed.

With the further adjustment and optimization of the energy structure in China and with a deep development of the coalbed methane cooperated with overseas, the related departments in China are considering to issue special laws and regulations for coalbed methane cooperated with overseas. Meanwhile the Chinese industrial departments are making

proposals to the Chinese Government to establish laws favorable to the development of coalbed methane, specially the favorable taxation laws for international cooperation on coalbed methane development in order to have a better coalbed methane taxation policy than the conventional natural gas and to have a more better environment for investment in the development of coalbed methane in China.

China West-east gas pipeline project kicks off

On 4 June 2002, China officially started the mammoth US\$8.9 billion pipeline project to transport natural gas from Northwest China's Xinjiang Uygur Autonomous Region to Shanghai on the east coast of China. The 4,000-kilometre pipeline will run from the Tarim Basin, through eight provinces and regions and cross China's two largest rivers -- the Yellow and the Yangtze rivers -- before reaching Shanghai. It is the second largest infrastructure project since 1949 following the US\$22 billion Three Gorges Dam project, and is the largest foreign-funded project. The whole trunkline is expected to be completed in 2005. It aims to transport gas of at least 12 billion cubic meters annually for 20 years.

PetroChina oversees 50 per cent of the project, including gas field development, pipeline construction and gas marketing. Three foreign partners - Royal/Dutch Shell, ExxonMobil and Russia's Gazprom - take 15 per cent each, while Sinopec - China's second largest oil company -

takes the remaining 5 per cent. The co-operation period is 45 years. The joint venture will spend US\$3.3 billion in gas field development and US\$5.6 billion in pipeline construction.

The official start of the project, which will help satisfy the rapidly growing demand for energy on the wealthy eastern coast as well as boost investment in the nation's relatively poor western regions. Calling the project an important step in the country's western development campaign, the project would contribute to the improvement of the lives of the people living in the vast Xinjiang region. Moreover, the clean-burning natural gas the pipeline will carry should also help upgrade the energy structure of Shanghai and other prosperous cities in the Yangtze River delta. The pipeline, carefully designed and built to the highest quality, should give new growth momentum to all local areas it passes through, sparking new ways to reinvigorate the economy and life.

The 3rd International Methane/Nitrous Oxide Mitigation Conference to be held on September 2003 in Beijing

The 3rd International Methane/Nitrous Oxide Mitigation Conference will be held in Beijing, China on September 2003 and there will be over 300 people attended the conference. This international conference was first organized and prepared by US Environment Protection Agency (EPA) and now China Coal Information Institute is asked by EPA to sponsor the conference. Meanwhile the conference wishes to have more international organizations and Chinese institutions to jointly sponsor the conference.

From June 14 to 25, 2002, Mr. Clark Talkington, Program manager of Coalbed Methane Outreach Program of USEPA had a visit to China. To protect the environment and reduce green house air emission, such as methane and Nitrous Oxide emission, US EPA has successfully sponsored the previous two conferences on methane emission reduction. The 3rd conference will be sponsored in China. The main purpose of Mr. Clark Talkington's visit to China was to talk about the related issues of the conference. Mr. Dou Qingfeng President and Mr. Huang Shengchu Vice President of China Coal Information Institute, and Mrs. Hu Yuhong, director of Research and Consulting Division of China Coal Information Institute met with Mr. Clark Talkington and had a detail meeting on the preparation work and schedule of the international conference. During his visit in Beijing, companied with Mr. Huang Shenghong and Mrs. Hu Yu-hong, Mr. Clark Talkington had met with Academician Fang Weitang, Vice

Minister of China National Coal Association, Mr. Bai Ran, Director of the International Cooperation and Mr. Lin Yisheng Vice Director of Department of Foreign Affair of the State Administration of Work Safety. Mr. Clark Talkington also paid visits to the Climate Exchange Office of the State Development Planning Commission, China Academy of Agriculture Sciences, China United Coalbed Methane Corp., Asian Development Bank, UNDP Beijing Office, British Embassy and other officers and experts. They all express their interests and support to the conference to be hold in 2003. China National Coal Association, China Academy of Agriculture Sciences, China United Coalbed Methane Corp., UNDP and Asian Development Bank have clearly expressed their willing to be one of the joint sponsors of the conference. Officers from UNDP and Asian Development Bank expressed that they will provide financial support to the partial representatives from developing countries attending the conference or to publishing cost of the conference proceedings.

Mr. Clark Talkington had a successful visit in China and highly appreciated the support and excellent coordination capacity of CCII. He expressed that the international conference in 2003 would be a great success.

The 1st International Conference on methane emission reduction Conference was hold in Ukraine in 1997 and the 2nd International

Conference was held in Russia in 2000. China has been selected as a place to hold the 3rd International Conference, which would have more attraction to the world. Since China being a member of WTO, high economic development and the great potential in methane emission

reduction in China have attracted great interests from all over the world. The 3rd international conference will relate to coalbed methane in coal mining area, agriculture and livestock, rubbish methane and natural gas industry.

Abandoned Mines Methane Projects Advisory Center established in China Coal Information Institute

The development and utilization of coalbed methane can reduce the potential risk of mine safety, protect air environment and clearly use the energy and have many other functions. In the recent years, more and more countries have given attention to the development and utilization of the coalbed methane. China is rich in coal resources and has a long history of coal mining. With the resources getting less and less, there are many coal mines closed or to be closed. According to the statistics, there are 459 state owned key mines abandoned by the end of 1999. There are over 30.0 billion t of coal resources left in the abandoned mines and goaf areas of mines in production, where have mine gas quantity estimated over 100.00 billion m³. In about 600 mines of the previous 94 key coal enterprises, one third of them are coal reserve exhausting coal mines. The most abandoned mines in China are high gassy mines not only with rich gas resources, but equipped with underground gas drainage system and surface transportation and distribution system. Therefore those can insure a stable gas supply and also can highly reduce the initial investment. The outlook on the drainage and utilization of the abandoned mine gas will be marvelous.

The United Kingdom is one of earliest countries to develop and utilize the coalbed methane in abandoned mines. In the recent two years, due to well resolve the ownership issue of the coalbed methane resources and coalbed methane power generation with electric power network, the drainage and utilization of coalbed methane from abandoned mines in UK are rapidly developed and their technology is in World leading level. Up to now, there are 8 abandoned mine coalbed methane projects in operation with obvious economic and social benefits, which are basically in a commercialized production.

Therefore, in order to help the Chinese enterprises to have the world advanced technology information on the drainage and utilization of gas from abandoned mine and to develop the abandoned mine coalbed methane projects, and to promote the technology and economic cooperation in this area between China and UK and to jointly push the development and utilization of abandoned mine gas, Abandoned Mines Methane Projects Advisory Center was jointly established by China

Coal Information Institute, Wardell Armstrong Company UK and AEA Technology Company on May 2002 and is located in China Coal Information Institute.

The main tasks of Abandoned Mines Methane Projects Advisory Center are including:

- To spread the recent progress and new technology achievements of the drainage and utilization of abandoned mine gas all over the world, specially in UK, to Chinese enterprises;
- To introduce Chinese enterprises and other institutions actively to joint the abandoned mine gas projects and to provide consultant and assistance to the evaluation, design and construction of the Chinese projects.
- To provide technical proposals for Chinese

coal mine to be closed in order to optimize the drainage operation from abandoned mine after the coal mined closed.

- To help Chinese enterprises to set up the training programs for the site location, evaluation and development of the abandoned mine gas project;
- To help Chinese enterprises to connect with potential investors and technological

Abandoned Mines Methane Projects Advisory Center is going to provide above consulting services to all enterprises in China by e-mail, fax, telephone and face to face talk and other way with free of charge. Also the center would like to provide pre-feasibility study, feasibility study, engineering design and any other commercial services base on the negotiations.

PRC First National Workshop on of “Promotion of Renewable Energy, Energy Efficiency and Greenhouse Gas Abatement (PREGA)” held in Beijing

“Promotion of Renewable Energy, Energy Efficiency and Greenhouse Gas Abatement (PREGA) ” Kick-off Workshop was held in Beijing on 19 June 2002. The kick-off workshop was sponsored by Asian Development Bank, organized by People's Republic of China's State Environmental Protection Administration (SEPA).

The PREGA, which is a three-year regional technical assistance project to widen access of the poor to cleaner energy and reduce greenhouse gas emissions, was ratified by The Board of Directors of ADB on 4 January 2001. The project, funded by the Netherlands and ADB

with grants of US\$4.5 million and \$500,000, respectively, will generate a pipeline of investment projects. These will be considered for financing by commercial, multilateral, and bilateral sources, including the Global Environment Facility (GEF) and the Clean Development Mechanism (CDM). The PREGA project covers 15 ADB members in the Asia-Pacific Region. This continuation of ADB's work in climate change, will help to build the capacity to prepare renewable energy, energy efficiency, and greenhouses gas abatement projects up to the pre-feasibility level. Similar workshops have been held in some of ADB's 15 developing member countries participating in the

project.

Officers and Experts from ADB provided more details on PREG and described the opportunities offered by these programs and issues related to the Kyoto Protocol and Clean Development Mechanism. Speakers from PRC

presented country's climate change, renewable energy and energy efficiency programs. A country work plan was presented to solicit comments and suggestions to improve it. Project implementation arrangements in PRC also were discussed

Potential and development schedule of coalbed methane development in Huainan Mining Area

Huainan coal field is one of the earliest coal fields in coal resources development in Anhui Province and also is one of the earliest coal fields in coalbed methane development and utilization. The total gas drainage in Huainan coal field in 1998 was 21.4680 million m³, in 1999 was 37.52 million m³, in 2000 was 49.0 million m³ and in 2001 was 74.00 million m³. At present, the gas drainage operations are mainly to ensure a safety production, only Xieyi and Xie'er Mines are utilizing the gas for residential application. The utilization rate of the gas is only about 60 to 70 %.

Seams in Huainan coal field are rich in coalbed methane resources. The measured information showed that the gas content in main seams is about 8 to 15 m³/t and the max content can be 20 m³/t. The total coalbed methane resources in Huainan coal field is about 592.825 billion m³. Among that, the developed and utilized resources of coalbed methane are about 320.0 billion m³. The density of the gas resources in Huainan coal field is very high and about 142 million m³/km². Xieli area is the highest place with a gas density upto 405 million m³/km², which is

not often in the world. Except for Dingji mine field, the methane contents in other mine fields of Huainan coal field are all over 78 %, the max is 97 % and the average content is over 85 %.

Huainan mining area is located in the east economic developed zone of China, which is 67 km to Bengbu City, 107 km to Hefei City, 250 km to Nanjing City and 570 km to Shanghai City. Those cities will be a great market for the development and utilization of coalbed methane in Huainan Mining Group.

The general development strategy of Huainan Mining Group set in 2002 clearly showed that the development schedule of coalbed methane would be in three stages, such a risk exploration and trial production period, a development and production period and a stable production period. The schedule of the coalbed methane project with an annual gas production of 2.0 billion m³ in Huainan Mining Group will be according to the boundary limitation defined by "the Approval of International Cooperation on Coalbed Methane Resources in Lianghuai Coal Fields and Taihangshan Donglu Coal Fields Issued the

State Planning Commission", that Panji Gugou District and Xieli District would be the districts for international cooperation. Those two districts located out off the 15 years mining areas have individually areas of 235.05 km² and 299.1 km². According to the present information, those two areas have estimated reservoirs of 372 million m³/km² and 405 million m³/km² individually and have a total resources of 208.5 billion m³ base on drainage rate of 50 %. The development and production size for the international cooperation will be 1.0 billion m³/year and the mining period will be about 100 years. From the year of 2004, Guqiao Dingji District, Zhangji Xieqiao District

and other district in Huainan Area will have a domestic cooperation to do the risk exploration, trial production and development. It is planned to reach a production of 1.0 billion m³/year within 7 years and at the year of 2010. At that time, the total gas production will be 2.0 billion m³/year. The two districts will individually have an area of 254.0 km² and 116.85 m³ out off the 15 year mining area. According to the present information, the reservoirs of the two districts will individually be 186 million m³ and 161 million m³ and have a resource of 66.057 billion m³ base on the drainage rate of 50 %. The service period of the two districts will be about 33 years.

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